AMENDMENTS TO THE CLAIMS

1. (currently amended): An expression cassette, comprising

a polynucleotide sequence operably linked to a promoter, wherein the polynucleotide sequence encodes an HIV *Gag* polypeptide ~~including an immunogenic HIV *Gag* polypeptide~~ that elicits a *Gag*-specific immune response, and further wherein the polynucleotide sequence encoding said *Gag* polypeptide comprises a nucleotide sequence having at least 90% sequence identity to the sequence presented as either nucleotides 844-903 of Figure 1 (SEQ ID NO:1) ~~or nucleotides 841-900 of Figure 2 (SEQ ID NO:2)~~.

2. (currently amended): An expression cassette comprising

a polynucleotide sequence operably linked to a promoter, wherein the polynucleotide sequence encodes an HIV *Gag* polypeptide ~~including an immunogenic HIV *Gag* polypeptide~~ that elicits a *Gag*-specific immune response, and further wherein the polynucleotide sequence encoding said *Gag* polypeptide comprises a nucleotide sequence having at least 90% sequence identity to the sequence presented as Figure 1 (SEQ ID NO:3) ~~or Figure 2 (SEQ ID NO:4)~~.

3. (currently amended): ~~The expression cassette of claim 2, wherein said polynucleotide sequence encoding a polypeptide including an HIV *Gag* polypeptide comprises a sequence having at least 90% sequence identity to the sequence presented as Figure 1 (SEQ ID NO:3).~~ An expression cassette, comprising a polynucleotide sequence operably linked to a promoter, wherein the polynucleotide sequence encodes an HIV *Gag* polypeptide that elicits a *Gag*-specific immune response, and further wherein the polynucleotide sequence encoding said *Gag* polypeptide comprises a nucleotide sequence having at least 90% sequence identity to the sequence presented as nucleotides 841-900 of Figure 2 (SEQ ID NO:2).

4. (currently amended): ~~The expression cassette of claim 2, wherein said polynucleotide sequence encoding a polypeptide including an HIV *Gag* polypeptide~~ An expression cassette comprising

a polynucleotide sequence operably linked to a promoter, wherein the polynucleotide sequence encodes an HIV *Gag* polypeptide that elicits a *Gag*-specific immune response, and further wherein the polynucleotide sequence encoding said *Gag* polypeptide comprises a sequence having at least 90% sequence identity to the sequence presented as Figure 2 (SEQ ID NO:4).

5. (original): The expression cassette of claim 2, wherein the polynucleotide sequence encoding said *Gag* polypeptide consists of a sequence having the sequence presented as Figure 1 (SEQ ID NO:3).

6. (currently amended): The expression cassette of claim 4 ~~2~~, wherein the polynucleotide sequence encoding said *Gag* polypeptide consists of a sequence having the sequence presented as Figure 2 (SEQ ID NO:4).

7. (currently amended): The expression cassette of claim ~~2~~ 1 or claim 3, wherein said polynucleotide sequence further includes a polynucleotide sequence encoding an HIV *protease* polypeptide.

8. (currently amended): The expression cassette of claim ~~2~~ 1 or claim 3, wherein said polynucleotide sequence further includes a polynucleotide sequence encoding an HIV *polymerase* polypeptide.

9. (currently amended): The expression cassette of ~~any of~~ claim ~~2~~ 1 or claim 3, wherein said polynucleotide sequence further includes a polynucleotide sequence encoding an HIV *polymerase* polypeptide, wherein the sequence encoding the HIV *polymerase* polypeptide is modified by deletions of coding regions encoding reverse transcriptase and integrase.

10. (previously presented): The expression cassette of claim 9, wherein said polynucleotide sequence encodes a polypeptide comprising T-helper cell and CTL epitopes.

11 to 23. (canceled).

24. (currently amended): A recombinant expression system for use in a selected host cell, comprising, the expression cassette of claim 1 or claim 3,, and wherein said polynucleotide sequence is operably linked to control elements compatible with expression in the selected host cell.

25. (original): The recombinant expression system of claim 24, wherein said control elements are selected from the group consisting of a transcription promoter, a transcription enhancer element, a transcription termination signal, polyadenylation sequences, sequences for optimization of initiation of translation, and translation termination sequences.

26. (original): The recombinant expression system of claim 24, wherein said transcription promoter is selected from the group consisting of CMV, CMV+intron A, SV40, RSV, HIV-Ltr, MMLV-ltr, and metallothionein.

27. (currently amended): A cell comprising the expression cassette of claim 1 or claim 3, and wherein said polynucleotide sequence is operably linked to control elements compatible with expression in the selected cell.

28. (original): The cell of claim 27, wherein the cell is a mammalian cell.

29. (original): The cell of claim 28, wherein the cell is selected from the group consisting of BHK, VERO, HT1080, 293, RD, COS-7, and CHO cells.

30. (original): The cell of claim 29, wherein said cell is a CHO cell.

31. (original): The cell of claim 27, wherein the cell is an insect cell.

32. (original): The cell of claim 31, wherein the cell is either *Trichoplusia ni* (Tn5) or Sf9 insect cells.

33. (original): The cell of claim 27, wherein the cell is a bacterial cell.

34. (original): The cell of claim 27, wherein the cell is a yeast cell.

35. (original): The cell of claim 27, wherein the cell is a plant cell.

36. (original): The cell of claim 27, wherein the cell is an antigen presenting cell.

37. (previously presented): The cell of claim 36, wherein the antigen presenting cell is a lymphoid cell is selected from the group consisting of macrophage, monocytes, dendritic cells, B-cells, T-cells, stem cells, and progenitor cells thereof.

38. (original): The cell of claim 27, wherein the cell is a primary cell.

39. (original): The cell of claim 27, wherein the cell is an immortalized cell.

40. (original): The cell of claim 27, wherein the cell is a tumor-derived cell.

41. (currently amended): A composition for generating an immunological response, comprising:

the expression cassette of claim 1 or claim 3.

42. (original): The composition of claim 41, further comprising a *Gag* polypeptide.

43. (original): The composition of claim 41, further comprising an adjuvant.

44 to 48. (canceled).

49. (previously presented): A method of generating an immune response in a subject, comprising,

introducing the composition of claim 41 into said subject under conditions that are compatible with expression of said expression cassette in said subject.

50. (original): The method of claim 49, wherein said expression cassette is introduced using a gene delivery vector.

51. (original): The method of claim 50, wherein the gene delivery vector is a non-viral vector.

52. (original): The method of claim 50, wherein said gene delivery vector is a viral vector.

53. (original): The method of claim 52, wherein said gene delivery vector is a Sindbis-virus derived vector.

54. (original): The method of claim 52, wherein said gene delivery vector is a retroviral vector.

55. (original): The method of claim 52, wherein said gene delivery vector is a lentiviral vector.

56. (original): The method of claim 49, wherein said composition delivered using a particulate carrier.

57. (original): The method of claim 49, wherein said composition is coated on a gold or tungsten particle and said coated particle is delivered to said subject using a gene gun.

58. (original): The method of claim 49, wherein said composition is encapsulated in a liposome preparation.

59. (currently amended): The method of claim 49 ~~any of claims 49-58~~, wherein said subject is a mammal.

60. (original): The method of claim 59, wherein said mammal is a human.

61 to 62. (canceled).

63. (currently amended): The method of claim 49 ~~62~~, where the method further comprises administration of an HIV polypeptide.

64. (original): The method of claim 63, wherein administration of the polypeptide to the subject is carried out before introducing said expression cassette.

65. (original): The method of claim 63, wherein administration of the polypeptide to the subject is carried out concurrently with introducing said expression cassette.

66. (original): The method of claim 63, wherein administration of the polypeptide to the subject is carried out after introducing said expression cassette.

67. (previously presented): An expression cassette comprising the polynucleotide sequence of SEQ ID NO:1 or SEQ ID NO:2.

68. (previously presented): An expression cassette comprising the polynucleotide sequence of SEQ ID NO:3.

69. (previously presented): An expression cassette comprising the polynucleotide sequence of SEQ ID NO:4.

70. (original): The expression cassette of claim 68, further comprising a nucleotide sequence encoding an HIV protease polypeptide.

71. (original): The expression cassette of claim 69, further comprising a nucleotide sequence encoding an HIV protease polypeptide.

72. (original): The expression cassette of claim 68, further comprising a nucleotide sequence encoding an HIV polymerase polypeptide.

73. (original): The expression cassette of claim 69, further comprising a nucleotide sequence encoding an HIV polymerase polypeptide.

74. (original): A composition for generating an immunological response in a mammal comprising the expression cassette of claim 67.

75. (original): A method of generating an immune response in a mammal, the method comprising the step of intramuscularly administering the expression cassette of claim 67 to said mammal.